

In the Claims

Please cancel claims 1-111 and enter new claims 112-150

The following Listing of Claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

1-111. Cancelled.

112. (New) A vector system for producing infectious virus particles having a characteristic of BAAV, the system comprising at least one vector comprising a nucleic acid sequence selected from the group consisting of:

- (a) a pair of BAAV inverted terminal repeats;
- (b) a nucleic acid sequence encoding a capsid protein comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:9, and SEQ ID NO:11; and,
- (c) a nucleic acid sequence encoding a protein comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:3, and SEQ ID NO:5.

113. (New) The vector system of claim 112, wherein each of the terminal repeats is capable of forming a T-shaped hairpin structure, and wherein at least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

114. (New) The vector system of claim 113, wherein the TRS comprises SEQ ID NO:14.

115. (New) The vector system of claim 114, wherein the Rep protein binding site comprises SEQ ID NO:24.

116. (New) The vector system of claim 112, wherein each inverted terminal repeat comprises a nucleic acid sequence at least 60% identical to SEQ ID NO:12, but wherein at

least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

117. (New) The vector system of claim 112, wherein each inverted terminal repeat comprises a nucleic acid sequence at least 70% identical to SEQ ID NO:12, but wherein at least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

118. (New) The vector system of claim 112, wherein each inverted terminal repeat comprises a nucleic acid sequence at least 90% identical to SEQ ID NO:12, but wherein at least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

119. (New) The vector system of claim 112, wherein each inverted terminal repeat comprises SEQ ID NO:12.

120. (New) The vector system of claim 112, wherein the nucleic acid sequence of (b) is at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:8, and SEQ ID NO:10.

121. (New) The vector system of claim 112, wherein the nucleic acid sequence of (b) is selected from the group consisting of SEQ ID NO:6, SEQ ID NO:8, and SEQ ID NO:10.

122. (New) The vector system of claim 112, wherein the nucleic acid sequence of (c) is at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:2, and SEQ ID NO:4.

123. (New) The vector system of claim 112, wherein the nucleic acid sequence of (c) is selected from the group consisting of SEQ ID NO:2, and SEQ ID NO:4.

124. (New) The vector system of claim 112, wherein the nucleic acid sequence of (b) encodes a protein comprising a sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:9, and SEQ ID NO:11.

125. (New) The vector system of claim 112, wherein the nucleic acid sequence of (c) encodes a protein comprising a sequence selected from the group consisting of SEQ ID NO:3, and SEQ ID NO:5.

126. (New) The vector system of claim 112, wherein the at least one vector comprises a pair of inverted terminal repeats, and wherein the vector further comprises a promoter between the BAAV inverted terminal repeats.

127. (New) The vector system of claim 126, wherein the promoter is functionally linked to an exogenous nucleic acid sequence.

128. (New) The vector system of claim 112, wherein a vector of the vector system is encapsidated in an AAV particle.

129. (New) The vector system of claim 128, wherein the vector is encapsidated in a dependent parvovirus particle.

130. (New) The vector system of claim 129, wherein the parvovirus particle is an AAV1 particle, an AAV2 particle, an AAV3 particle, an AAV4 particle, an AAV5 particle, an AAV6 particle, an AAV7 particle, an AAV8 particle, an AAV particle, or a BAAV particle.

131. (New) A vector system comprising at least two vectors, wherein a first vector comprises at least one nucleic acid sequence selected from the group consisting of:

(a) a nucleic acid sequence encoding a capsid protein comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:9, and SEQ ID NO:11; and,

(b) a nucleic acid sequence encoding a protein comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:3, and SEQ ID NO:5;

and wherein a second vector comprises a pair of BAAV inverted terminal repeats.

132. (New) The vector system of claim 131, wherein each of the terminal repeats is capable of forming a T-shaped hairpin structure, and wherein at least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

133. (New) The vector system of claim 132, wherein the TRS comprises SEQ ID NO:14.

134. (New) The vector system of claim 132, wherein the Rep protein binding site comprises SEQ ID NO:24.

135. (New) The vector system of claim 131, wherein each inverted terminal repeat comprises a nucleic acid sequence at least 60% identical to SEQ ID NO:12, but wherein at least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

136. (New) The vector system of claim 131, wherein each inverted terminal repeat comprises a nucleic acid sequence at least 70% identical to SEQ ID NO:12, but wherein at least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

137. (New) The vector system of claim 131, wherein each inverted terminal repeat comprises a nucleic acid sequence at least 90% identical to SEQ ID NO:12, but wherein at least one inverted terminal repeat comprises at least one site selected from the group consisting of a BAAV terminal-resolution site (TRS) and a Rep protein binding site.

138. (New) The vector system of claim 131, wherein each inverted terminal repeat comprises SEQ ID NO:12.

139. (New) The vector system of claim 131, wherein the nucleic acid sequence of (a) is at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:8, and SEQ ID NO:10.

140. (New) The vector system of claim 131, wherein the nucleic acid sequence of (a) is selected from the group consisting of SEQ ID NO:6, SEQ ID NO:8, and SEQ ID NO:10.

141. (New) The vector system of claim 131, wherein the nucleic acid sequence of (b) is at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:2, and SEQ ID NO:4.

142. (New) The vector system of claim 131, wherein the nucleic acid sequence of (b) is selected from the group consisting of SEQ ID NO:2, and SEQ ID NO:4.

143. (New) The vector system of claim 131, wherein the nucleic acid sequence of (b) encodes a protein comprising a sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:9, and SEQ ID NO:11.

144. (New) The vector system of claim 131, wherein the nucleic acid sequence of (b) encodes a protein comprising a sequence selected from the group consisting of SEQ ID NO:3, and SEQ ID NO:5.

145. (New) The vector system of claim 131, wherein the first vector comprises:  
(a) a nucleic acid sequence encoding a capsid protein comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:9, and SEQ ID NO:11; and,

(b) a nucleic acid sequence encoding a protein comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:3, and SEQ ID NO:5.

146. (New) The vector system of claim 131, wherein the second vector further comprises a promoter between the BAAV inverted terminal repeats.

147. (New) The vector system of claim 146, wherein the promoter is functionally linked to an exogenous nucleic acid sequence.

148. (New) The vector system of claim 131, wherein a vector of the vector system is encapsidated in an AAV particle.

149. (New) The vector system of claim 148, wherein the vector is encapsidated in a dependent parvovirus particle.

150. (New) The vector system of claim 149, wherein the parvovirus particle is an AAV1 particle, an AAV2 particle, an AAV3 particle, an AAV4 particle, an AAV5 particle, an AAV6 particle, an AAV7 particle, an AAV8 particle, an AAV particle, or a BAAV particle.